

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 87-041
NPDES NO. CA0028207

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

CONTRA COSTA WATER DISTRICT
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter the Board) finds that:

1. Contra Costa Water District, hereinafter the discharger, submitted a report of waste discharge dated December 17, 1986, and applied for renewal of waste discharge requirements and a permit to discharge wastes under the National Pollutant Discharge Elimination System (NPDES).
2. A water softening plant operated by the discharger was constructed to soften 15.8 million gallons per day (mgd) of treated effluent from Central Contra Costa Sanitary District (CCCSD). The softened water will be distributed to industries for industrial uses. Due to regeneration of the softening units, 0.75 mgd of brine wastewater will be discharged into the CCCSD's outfall and into the Suisun Bay, a water of the United States, at a point approximately 1,600 feet offshore at a depth of 24 feet below mean lower low water (Latitude 38 deg., 0 min., 41 sec., Longitude 122 deg., 4 min., 18 sec.).
3. The discharge is presently governed by Waste Discharge Requirements prescribed by Order No. 82-7, which allow discharge into Suisun Bay.
4. Water Reclamation Requirements were adopted for this project in Order No. 79-34.
5. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for Suisun Bay and contiguous waters.
6. The beneficial uses of Suisun Bay and contiguous water bodies are:
 - Contact and Non-contact Water Recreation
 - Wildlife Habitat
 - Preservation of Rare and Endangered Species
 - Fish Migration and Spawning
 - Industrial Service Supply
 - Navigation
 - Commercial and Sport Fishing
7. An Operation and Maintenance Manual is maintained by the discharger purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, and recommended operation strategies, process control monitoring, and main activities. In order to remain a useful and relevant document, the Manual should be kept updated to reflect significant changes in fact.

activities.

8. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 commencing with Section 21100 of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
9. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the discharge and have been provided with the opportunity for a public hearing and opportunity to submit their written views and recommendations.
10. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The waste shall be limited to brine discharge resulting from the water softening process, and no additional pollutants shall be added.
2. The waste discharged to CCCSD's outfall shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Maximum Daily</u>	<u>Instan- taneous Maximum</u>
a. Total Suspended Solids	mg/l	15	30	---
b. Total Chlorine Residual (1)	mg/l	---	---	0.0

- (1) Requirement defined as below the limit of detection in standard test methods.
3. The pH of the discharge shall not exceed 9.0 nor be less than 6.0.
4. The survival of test organisms acceptable to the Executive Officer in 96-hour bioassays of the effluent shall achieve a 90 percentile value of not less than 50% survival based on the ten most recent consecutive samples.
5. The running median value for the MPN of total coliform in any five (5) consecutive effluent samples shall not exceed 240 coliform organisms per 100 milliliters. Any single sample shall not exceed 10,000 MPN/100 ml.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulated matter or foam;
 - b. Bottom deposits or aquatic growths;
 - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
 - a. Dissolved oxygen 7.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. Dissolved sulfide 0.1 mg/l maximum
 - c. pH Variation from natural ambient pH by more than 0.2 pH units.
 - d. Un-ionized ammonia 0.025 mg/l as N Annual Median
0.4 mg/l as N Maximum
3. The discharger shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Provisions

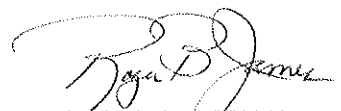
1. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 82-7. Order No. 82-7 is hereby rescinded.

2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply:

Mass Emission Limit in lbs/day = Concentration Limit in mg/l x 8.34 x Actual Flow in mgd averaged over the time interval to which the limit applies.

3. The discharger shall comply with all sections of this Order upon commencement of discharge from the water softening process.
4. The discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year.
5. The discharger shall review and update by December 31, annually, its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.
6. The discharger shall comply with the self-monitoring program as adopted by the board.
7. The discharger shall comply with all items except B.2, B.3 and C.11 of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986.
8. This Order expires May 20, 1992. The discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.
9. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on May 20, 1987.


ROGER B. JAMES
Executive Officer

Attachments:

Standard Provisions & Reporting
Requirements, December 1986
Self-Monitoring Program
Resolution 74-10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

CONTRA COSTA WATER DISTRICT

CONTRA COSTA COUNTY

NPDES NO. CA0028207

ORDER NO. 87-041

CONSIST OF

PART A DATED DECEMBER 1986

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

A. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At any point in the brine discharge pipeline from the water softening plant at which all waste tributary to that pipeline is present. (May be the same as E-001-D.)
E-001-D	At any point in the disinfection facilities for Waste E-001 at which point adequate contact with the disinfectant is assured.

B. RECEIVING WATERS

<u>Station</u>	<u>Description</u>
C-R	At a point in Suisun Bay, located 1,000 feet up current from the diffuser section of the outfall line
C-1	At a point in Suisun Bay, located within 25 feet of the point of discharge from the outfall diffuser section.
C-2	At a point in Suisun Bay, located 100 feet generally west from the diffuser section of the outfall line.
C-3	At a point in Suisun Bay, located 100 feet generally north from the offshore end of the diffuser section of the outfall line.
C-4	At a point in Suisun Bay, located 100 feet generally east from the diffuser section of the outfall line.
C-5	At a point in Suisun Bay, located 100 feet generally south from the diffuser section of the outfall line.

D. LAND OBSERVATIONS

<u>Station</u>	<u>Description</u>
P-1 thru P-'n'	Located along the periphery of the waste treatment or disposal facilities, at equidistant intervals, not to exceed 200 feet. (A sketch showing the locations of these stations will accompany each report.)

II. SCHEDULE OF SAMPLING AND ANALYSIS

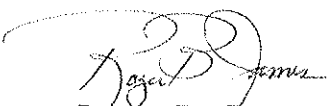
The schedule of sampling and analysis shall be that given as Table I.

III. MODIFICATIONS OF PART A

- A. Does not include the following paragraphs of Part A:
D.1, D.3, D.4, D.5, E.1, E.3, and E.4.
- B. Self-monitoring reports shall be submitted quarterly after discharge commences.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

- 1. Has been developed in accordance with the procedure set forth in the Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 87-041.
- 2. Is effective on the date shown below.
- 3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.


Roger B. James
Executive Officer

Effective Date MAY 22, 1987

Attachment:

Table I and Legend for Table

1

[illegible]

TABLE I (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001			E-001-D			All Sta. ^C							
TYPE OF SAMPLE	G	C-24	Cont	G	C-24	Cont	G							
Mercury (mg/l & kg/day)														
Nickel (mg/l & kg/day)														
Zinc (mg/l & kg/day)		3M												
PHENOLIC COMPOUNDS (mg/l & kg/day)														
All Applicable Standard Observations	W						3M							
Bottom Sediment Analyses and Observations														
Total Identifiable Chlorinated Hydrocarbons (mg/l & kg/day)														
Non-dissociated Ammonium hydroxide (mg/l) as N							2M							

LEGEND FOR TABLE

TYPES OF SAMPLES

- G = grab sample
- C-24 = composite sample - 24-hour
- C-X = composite sample - X hours
(used when discharge does not continue for 24-hour period)
- Cont = continuous sampling
- BS = bottom sediment sample
- O = observation

TYPES OF STATIONS

- A = treatment facility influent stations
- E = waste effluent stations
- C = receiving water stations
- P = treatment facilities perimeter stations
- L = basin and/or pond levee stations
- B = bottom sediment stations
- OV = overflows and bypasses

FREQUENCY OF SAMPLING

- | | | |
|---------------------|---|---------------------|
| E = each occurrence | 2/H = twice per hour | 2H = every 2 hours |
| H = once each hour | 2/W = 2 days per week | 2D = every 2 days |
| D = once each day | 5/W = 5 days per week | 2W = every 2 weeks |
| W = once each week | 2/M = 2 days per month | 3M = every 3 months |
| M = once each month | 2/Y = once in March and once in September | Cont = continuous |
| Y = once each year | | |

1/ During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:

1. Composite sample for BOD, Total suspended solids.
2. Grab sample for Coliform (Total and Fecal), Settleable matter, and chlorine residual (continuous or every two hours).
3. Continuous monitoring of flow.

2/ If the sample is to be taken at a point in the sanitary district's outfall where the brine has combined with the effluent discharge from the sanitary district, the water district shall coordinate with the sanitary district to sample at the same day.

